

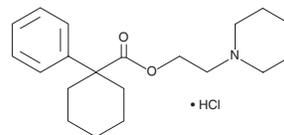
PRODUCT INFORMATION



PRE-084 (hydrochloride)

Item No. 9001329

CAS Registry No.: 75136-54-8
Formal Name: 1-phenyl-2-(4-morpholinyl)ethyl ester-cyclohexanecarboxylic acid, monohydrochloride
MF: C₁₉H₂₇NO₃ • HCl
FW: 353.9
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥5 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Sigma receptors are a structurally unique class of intracellular proteins that can be activated by the following agonists: cocaine, morphine/diacetylmorphine, opipramol, PCP, fluvoxamine, methamphetamine, dextromethorphan, and the herbal antidepressant berberin.¹ PRE-084 is a high affinity, sigma receptor agonist, selective for the σ_1 subtype (K_i s = 2.2 and 13,091 nM for σ_1 and σ_2 receptors, respectively).² It is a potent ligand of the σ receptor (IC_{50} = 44 nM) without appreciable affinity for PCP receptors (IC_{50} > 100,000 nM).² PRE-084 has nootropic and antidepressant actions *in vivo*, as well as antitussive and reinforcing effects.³⁻⁶

References

1. Katz, J.L., Su, T.-P., Hiranita, T., *et al.* A role for sigma receptors in stimulant self administration and addiction. *Pharmaceuticals (Basel)* **4(6)**, 880-914 (2011).
2. Su, T.-P., Wu, X.-Z., Cone, E.J., *et al.* Sigma compounds derived from phencyclidine: Identification of PRE-084, a new, selective sigma ligand. *J. Pharmacol. Exp. Ther.* **259(2)**, 543-550 (1991).
3. Maurice, T., Phan, V.-L., Urani, A., *et al.* Differential involvement of the sigma₁ (σ_1) receptor in the anti-amnesic effect of neuroactive steroids, as demonstrated using an *in vivo* antisense strategy in the mouse. *Br. J. Pharmacol.* **134(8)**, 1731-1741 (2001).
4. Brown, C., Fezoui, M., Selig, W.M., *et al.* Antitussive activity of sigma-1 receptor agonists in the guinea-pig. *Br. J. Pharmacol.* **141(2)**, 233-240 (2004).
5. Skuza, G. and Rogóz, Z. Antidepressant-like effect of PRE-084, a selective σ_1 receptor agonist, in Albino Swiss and C57BL/6J mice. *Pharmacol. Rep.* **61(6)**, 1179-1183 (2009).
6. Hiranita, T., Soto, P.L., Tanda, G., *et al.* Reinforcing effects of σ -receptor agonists in rats trained to self-administer cocaine. *J. Pharmacol. Exp. Ther.* **332(2)**, 515-524 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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